

REMARKS

In the present response, claims 1 and 2 were amended and claims 24-27 were added. Claims 1-9 and 24-27 remain pending in the captioned case. Further examination and reconsideration of the presently claimed application are respectfully requested.

Section 102 Rejections

Claims 1-9 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,411,261 to Lilly (hereinafter “Lilly”). The standard for “anticipation” is one of fairly strict identity. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art of reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); MPEP 2131. Furthermore, anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, as arranged in the claim. *W.L. Gore & Assocs. V. Garlock*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983). Using these standards, Applicants submit the cited art fails to disclose each and every element of the currently pending claims, some distinctive features of which are set forth in more detail below.

Lilly fails to anticipate a method for forming an apparatus in which a length of the apparatus is substantially equal to one-half of a signal transmission wavelength. Amended independent claim 1 recites in part:

A method for forming an apparatus configured to reduce electromagnetic interference between a pair of antennas coupled to a wireless communication device, wherein the method comprises: extracting a shape of the apparatus ... folding the shape into a plurality of resonant circuit elements, each configured to resonate at or near a carrier frequency of a signal transmitted by one of the pair of antennas; and wherein by the steps of extracting and folding, the apparatus is formed having a length substantially equal to one-half of the transmitted signal wavelength.

Support for the amendment made to claim 1 may be found in the present specification, e.g., page 30, lines 10-26. As such, the amendments do not introduce new matter.

The present invention provides a method for forming an apparatus, which is configured to reduce the amount of electromagnetic interference between two or more antennas coupled to a wireless communication device (see, e.g., FIG. 6 and supporting text). In the presently claimed embodiment, the apparatus is formed by extracting a shape of the apparatus from a thin sheet of conductive material, and folding the shape into a plurality of resonant circuit elements. Although the resonant circuit elements may be formed somewhat differently in various embodiments of the invention (see, e.g., FIGS. 7, 10 and 11 and supporting text), each of the resonant circuit elements is configured to resonate at (or near) a carrier frequency of a signal transmitted by one of the antennas. In order to provide maximum interference reduction, the presently claimed method forms the apparatus, such that a length of the apparatus is substantially equal to one-half of the transmitted signal wavelength. “In doing so, about half of the radiated energy will be scattered in one direction, while the other half is scattered in a substantially opposite direction. This provides maximum interference reduction by canceling most, if not all, of the radiated components from the incoming electromagnetic wave.” (Specification, page 33, lines 19-26).

Lily discloses a method for manufacturing an artificial magnetic conductor (AMC). For example, and as shown in FIGS. 1 and 2, Lily forms an artificial magnetic conductor (i.e., the alleged “apparatus”) by forming posts (106) and slots (108) within a post plane (104). The posts are then “operatively disposed” adjacent to a frequency selective surface (FSS, 102) including “one or more conductive shapes 110 printed or plated onto a substrate 112.” See, e.g., Lily, column 3, line 47 to column 4, line 2. Lily appears to consider the configuration (b) of the conductive shapes (110), the gap (g) between the conductive shapes (110) and the height (h) of the subsequently formed AMC, as illustrated in FIG. 2B of Lily. For example, Lily suggests that the height of the AMC typically ranges between about $\lambda/100$ and about $\lambda/50$, where λ is a free space wavelength. See, e.g., Lily, column 1, lines 18-35 and column 4, lines 2-16.

However, Lily is completely silent about the length of the subsequently formed AMC. In addition, Lily fails to teach, suggest or even provide motivation for maximizing interference reduction between a pair of antennas. More specifically, Lily fails to even mention the possibility of maximizing interference reduction by providing an apparatus, which is capable of scattering approximately half of the radiated energy (from one of the antennas) in one direction, while the other

half is scattered in a substantially opposite direction. Therefore, Lily cannot be relied upon to anticipate an apparatus, whose length is uniquely configured for scattering radiated energy in such a manner.

In other words, Lily fails to anticipate a method for forming an apparatus in which a length of the apparatus is substantially equal to one-half of a signal transmission wavelength, as recited in present claim 1. As a consequence, Lily fails to anticipate all limitations of present claim 1. In addition, dependent 2-9 are not anticipated by the cited art for at least the same reasons as claim 1. Accordingly, Applicants respectfully request that the § 102 rejection be removed in its entirety.

Patentability of Added Claims

Claims 24-27 have been added in the present response. Support for the addition of claim 24 may be found in the present specification, e.g., page 40, line 21 to page 41, line 2. Support for the addition of claim 25 may be found in the specification, e.g., page 35, lines 16-26. Support for the addition of claim 26 may be found in the specification, e.g., page 8, lines 23-32. Support for the addition of claim 27 may be found in the specification, e.g., pages 30-37 and Figs. 7, 10, and 11. As such, the addition of claims 24-27 do not introduce new matter.

In addition, dependent claims 24-27 are patentably distinct over the cited art for at least the same reasons as claim 1 discussed above. Accordingly, Applicants respectfully request that claims 24-27 be allowed.

CONCLUSION

The present amendment and response is believed to be a complete response to the issues raised in the Office Action mailed August 3, 2006. In view of the remarks herein, Applicants assert that pending claims 1-9 and 24-27 are in condition for allowance. If the Examiner has any questions, comments or suggestions, the undersigned attorney earnestly requests a telephone conference.

No fees are required for filing this amendment; however, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment, to Daffer McDaniel, LLP Deposit Account No. 50-3268/5867-00800.

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